CLAIMS AMENDMENTS

1. – 57. (cancelled).

58. (currently amended) A method for preparing a dispensable sophorolipid compound having spermicidal and/or antiviral properties comprising the steps of:

a) fermenting *Candida bombicola* in a fermentation media to form a natural mixture of lactonic sophorolipids and non-lactonic sophorolipids; then

b) treating the natural mixture of lactonic and non-lactonic sophorolipids with an alkoxide to form an ester at the carbonyl of the lactonic sophorolipids ; then

c) treating the esterified sophorolipids with lipase and an activated ester to form an ester at at least one hydroxyl position of the sophorolipid polar head group;

wherein the resultant treated sophorolipid is a compound having spermicidal and/or antiviral properties; and then

d) formulating the resultant treated sophorolipid compound having spermicidal and/or virucidal properties with an excipient ~~for dispensing~~ to obtain the dispensable sophorolipid compound having spermicidal and/or antiviral properties.

59. (previously presented) The method as claimed in Claim 58, wherein the alkoxide is derived from an alcohol, wherein the alcohol is a compound having the structure R-OH, wherein the R group comprises between 1 and 12 carbon atoms.

60. (previously presented) The method as claimed in Claim 58, wherein the alkoxide is a sodium alkanoate metal salt.

61. (previously presented) The method as claimed in Claim 58, wherein the activated ester is selected from the group consisting of linear or branched acids.

62. (previously presented) The method as claimed in Claim 61, wherein the activated ester is selected from the group consisting of vinyl acetate, vinyl propionate, and vinyl butyrate.

63. (previously presented) The method as claimed in Claim 58, wherein, when treating the natural mixture of lactonic and non-lactonic sophorolipids with lipase and an activated ester to form an ester at at least one hydroxyl position of the sophorolipid polar head group, the sophorolipids are esterified with acetate groups.

64. – 67. (cancelled).

68. (previously presented) The method as claimed in Claim 58, wherein the sophorolipid ester is ethyl 17-L-[(2´-O-β-D-glucopyranosyl-β-D-glucopyranosyl)-oxy]-cis-9-octadecenoate.

69. (previously presented) The method as claimed in Claim 58, wherein the ester formed on the sophorolipid is selected from the group consisting of methyl 17-L-[(2´-O-β-D-glucopyranosyl-β-D-glucopyranosyl)-oxy]-cis-9-octadecenoate-6',6"-diacetate, hexyl 17-L[(2'-O-β-D glucopyranosyl-β-D-glucopyranosyl)-oxy]-cis-9-octadecenoate, and ethyl 17-L[(2'-O-β-D glucopyranosyl-β-D-glucopyranosyl)-oxy]-cis-9-octadecenoate.

70. – 74. (cancelled).

75. (currently amended) A method for preparing a dispensable sophorolipid compound having spermicidal and/or antiviral properties comprising the steps of:

a) fermenting *Candida bombicola* in a fermentation media to form a natural mixture of lactonic sophorolipids and non-lactonic sophorolipids; then

b) treating the natural mixture of lactonic and non-lactonic sophorolipids with an alkoxide to form an ester at the carbonyl of the lactonic sophorolipids, wherein the alkoxide is derived from an alcohol, wherein the alcohol is a compound having the structure R-OH, wherein the R group comprises between 1 and 12 carbon atoms, and wherein the sophorolipid ester is methyl 17-L-[(2′-O-β-D-glucopyranosyl-β-D-glucopyranosyl)-oxy]-cis-9-octadecenoate, methyl 17-L-[(2′-O-β-D-glucopyranosyl-β-D-glucopyranosyl)-oxy]-cis-9-octadecenoate-6',6"-diacetate, hexyl 17-L[(2'-O-β-D glucopyranosyl-β-D-glucopyranosyl)-oxy]-cis-9-octadecenoate, and ethyl 17-L[(2'-O-β-D glucopyranosyl-β-D-glucopyranosyl)-oxy]-cis-9-octadecenoate; then

c) treating the esterified sophorolipids with lipase and an activated ester to form an ester at at least one hydroxyl position of the sophorolipid polar head group,

wherein the resultant treated sophorolipid is a compound having spermicidal and/or antiviral properties; and then

d) formulating the resultant sophorolipid compound having spermicidal and/or antiviral properties with DMSO as an excipient ~~for dispensing~~ at a concentration of 0.3 mg/mL sophorolipid compound to DMSO to obtain the dispensable sophorolipid compound having spermicidal and/or antiviral properties.

76. (previously presented) The method as claimed in Claim 75, wherein the alkoxide is a sodium alkanoate metal salt.

77. (previously presented) The method as claimed in Claim 75, wherein the activated ester is selected from the group consisting of linear or branched acids.

78. (previously presented) The method as claimed in Claim 75, wherein the activated ester is selected from the group consisting of vinyl acetate, vinyl propionate, and vinyl butyrate.

79. (previously presented) The method as claimed in Claim 75, wherein, when treating the natural mixture of lactonic and non-lactonic sophorolipids with lipase and an activated ester to form an ester at at least one hydroxyl position of the sophorolipid polar head group, the sophorolipid is esterified with acetate groups.